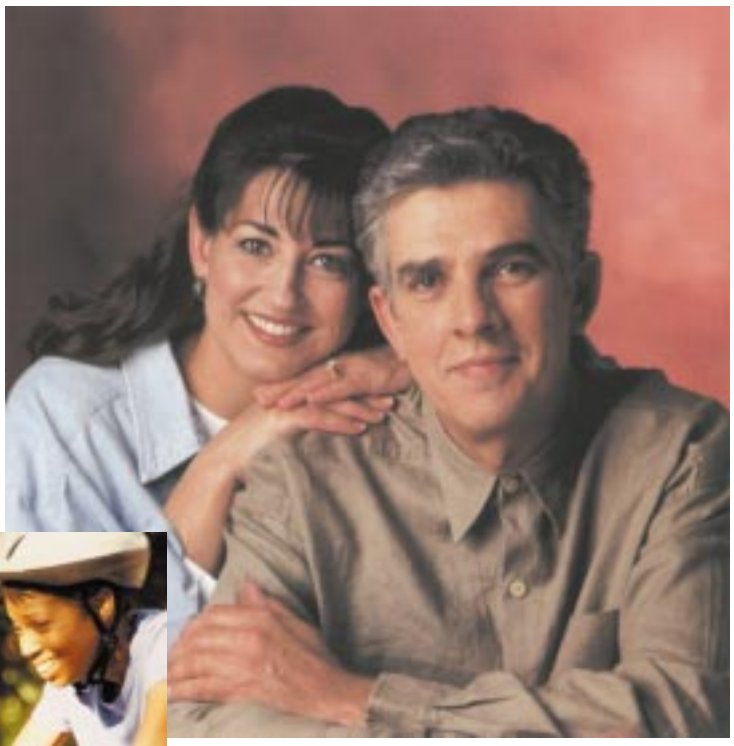
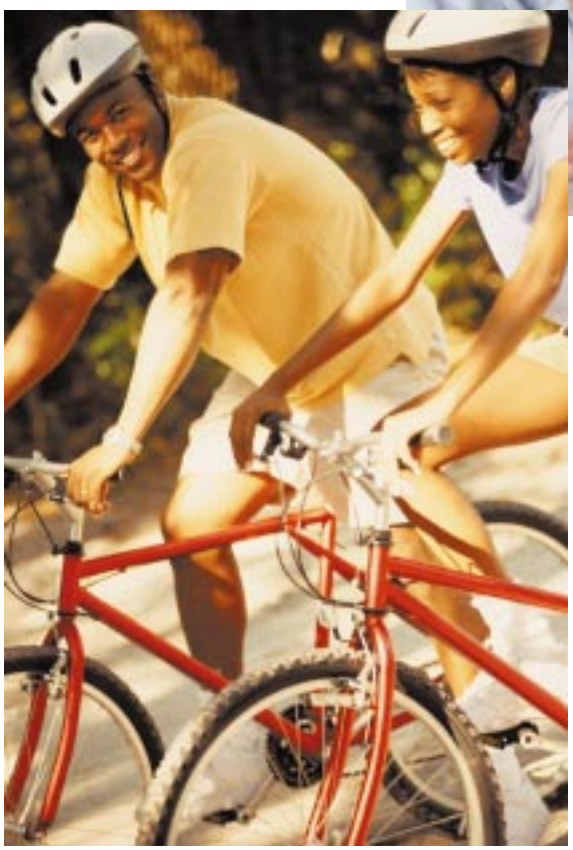
BRFSS

Health Risk Behaviors in the State of Michigan
2001 Behavioral Risk Factor Surveillance System





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We are especially grateful to the residents of Michigan who agreed to participate in this survey.

Behavioral Risk Factor Survey Summary Michigan 2001

This report presents estimates from the 2001 Michigan Behavioral Risk Factor Survey (BRFS). The BRFS is a statewide telephone survey of Michigan residents, aged 18 years and older. This survey is the only source of state-specific, population-based estimates of the prevalence of various behaviors, medical conditions, and preventive health care practices among Michigan adults.

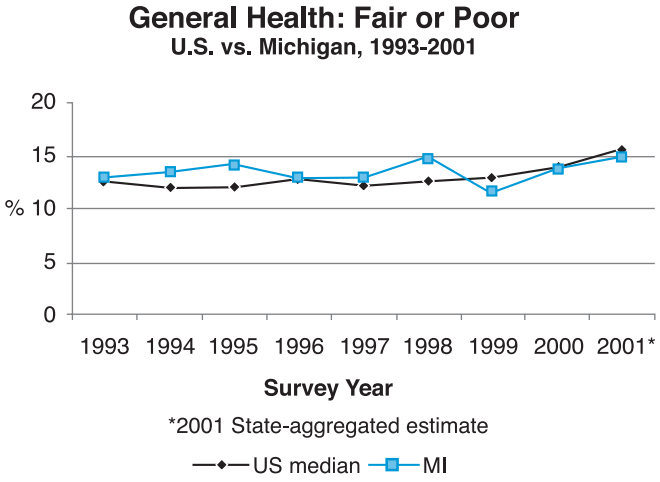
All results from the 2001 Michigan BRFS presented in this summary have been weighted as described in the Methods section and can be interpreted as estimates of the prevalence rates of various health risks among the general adult population of Michigan.

Selected Risk Factors	Michigan Estimates (%)	National Estimates (%)		
		Low	Median	High
No health care coverage, age 18–64	11.7	6.4	15.6	31.8
Colorectal screening: no FOBT in past 2 years, age 50 and over	63.5	56.8	68.7	99.9
Never had a sigmoidoscopy or colonoscopy, age 50 and over	44.8	38.0	53.7	69.5
Ever told by a doctor have diabetes	7.2	4.0	6.6	9.8
Cholesterol not checked in last 5 years	25.5	18.6	27.6	34.6
No flu shot in past year, age 65 and over	39.9	21.0	33.8	63.2
Never had a pneumococcal vaccination	41.9	29.1	38.8	75.9
Obesity (BMI≥30)	24.7	14.9	21.1	26.5
No leisure-time physical activity	23.5	16.5	25.8	49.2
Current smokers	26.1	9.6	22.9	31.2
Binge drinkers	18.2	6.8	14.8	25.7

Perceived Health Status

An overall perception of the general health status of a population can be detected through surveys in which respondents are asked to rate their health status. Self-rated health assessments may be influenced by non-clinical or prodromal factors that may have an impact on one's sense of well-being.[1, 2] Illness, mortality, and functional disability can be predicted by self-rated poor general health.[1]

In the 2001 BRFS interview, Michigan residents were asked to rate their general health given five categories: excellent, very good, good, fair, and poor. Almost 15% (14.9%) of respondents assessed their general health as fair or poor. The percentage of women who reported their health status as fair or poor was higher than that of men (men, 13.1% vs. women, 16.3%). The perception of fair or poor health status among those surveyed appeared to increase with age, but decreased with education and income levels.



2001 Michigan BRFS

Health Status
(% with 95% confidence intervals)

Demographic Characteristics	General Health Fair or Poor[a]
Total	**14.9 ± 1.2**
Age	
18–24 years	9.3 ± 3.4
25–34 years	8.4 ± 2.4
35–44 years	8.6 ± 2.1
45–54 years	15.4 ± 2.7
55–64 years	18.4 ± 3.6
65–74 years	25.7 ± 4.8
≥ 75 years	35.5 ± 5.7
Gender	
Male	13.1 ± 1.8
Female	16.3 ± 1.6
Race	
White	14.2 ± 1.3
Black	18.0 ± 3.8
Education	
Less than high school	31.6 ± 5.0
High school graduate	18.5 ± 2.4
Some college	12.1 ± 2.0
College graduate	5.5 ± 1.4
Household income	
<$20,000	30.3 ± 4.3
$20,000–34,999	20.1 ± 3.0
$35,000–49,999	9.6 ± 2.6
$50,000–74,999	6.0 ± 2.0
≥$75,000	6.4 ± 2.1

[a]Proportion of respondents who said that their health, in general, was fair or poor.

Health Care Coverage

2001 Michigan BRFS

No Health Care Coverage Among Those Aged 18–64
(% with 95% confidence intervals)

Demographic Characteristics	No Health Care Coverage[a]
Total	**11.7 ± 1.3**
Age	
18–24 years	17.2 ± 4.4
25–34 years	15.5 ± 3.3
35–44 years	9.9 ± 2.3
45–54 years	7.9 ± 2.2
55–64 years	8.4 ± 2.7
Gender	
Male	12.5 ± 2.1
Female	11.0 ± 1.6
Race	
White	10.6 ± 1.4
Black	17.7 ± 4.6
Education	
Less than high school	27.3 ± 6.5
High school graduate	16.0 ± 2.7
Some college	9.1 ± 2.0
College graduate	4.8 ± 1.6
Household income	
<$20,000	30.0 ± 5.5
$20,000–34,999	20.3 ± 3.6
$35,000–49,999	6.3 ± 2.2
$50,000–74,999	6.0 ± 2.5
≥$75,000	2.4 ± 1.5

[a]Proportion of respondents age 18–64 years who reported that they had no health care coverage.

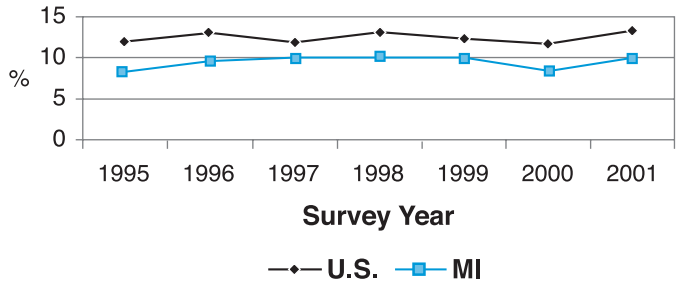
According to the U.S. census, approximately 14% of the U.S. population was without health insurance coverage in 2000.[3] Those more likely to be without health insurance coverage are adults with low incomes and young adults aged 18–34 years.[4] Consequences of not having health insurance coverage include difficulties in obtaining timely medical care and problems in paying medical bills and prescriptions.[4] Because of Medicare, elderly Americans are more likely than younger working adults to get medical care when they need it.

Using data from the 2001 BRFS, 11.7% of Michigan respondents aged 18–64 years stated that they had no health insurance coverage at the time of the interview. The proportion of adults without health care coverage declined with higher education and income levels. It was estimated that a higher proportion of African Americans in Michigan were without health care coverage than Caucasians (17.7% vs.10.6%). Adults 65 years and older had almost 100% health insurance coverage owing to the Medicare program.

Almost 7% (6.8 ± 1.3%) of Michigan residents with current health insurance were estimated to have had a lapse in health care coverage within the previous 12 months. This figure ranged from a high of 14.2 ± 4.4% among those aged 18–24 years to a low of 0.7 ± 0.6% for adults 55–64 years.

It was estimated that 20.8% (±1.6%) of those aged 18–64 were without a personal physician or health care provider. More men than women reported that they did not have a personal health care provider (men, 25.7 ± 2.7% vs. women, 16.1 ± 2.0%). African Americans were more likely to be without a personal health care provider than Caucasians (26.8 ± 5.3% vs. 19.50 ± 1.8%).

No Health Care Coverage
Among Adults Ages 18 and Older
U.S. vs. Michigan, 1995-2001



Physical Activity

Physical activity has beneficial effects on our musculoskeletal, cardiovascular, respiratory, and endocrine systems. Regular physical activity has been linked with lower mortality rates and with reduced risk of cardiovascular disease, colorectal cancer, and type II diabetes. Keeping physically active not only helps to maintain a healthy body weight and normal muscle strength, bone mass, and joint function, but also enhances psychological well-being.[5]

Physical activity is one of the leading health indicators that will be tracked for the nation's progress towards the Healthy People 2010 objectives. Leading health indicators have been identified as major public health concerns in the U.S. The specific objective set by Healthy People is to increase the proportion of adults who engage regularly in moderate physical activity for at least 30 minutes a day five or more days a week from 15% in 1997 to 30% by 2010.[6] Moderate physical activity causes small increases in heart rate and breathing, while vigorous activity brings about greater increases. Vigorous physical activities might include running, aerobics, or heavy yard work.

In the 2001 Michigan BRFS, an estimated 23.5% of respondents reported that they did not participate in any leisure-time physical activities or exercise in the past month. A greater proportion of African Americans than Caucasians had no leisure-time physical activity in the past 30 days (African Americans, 29.9% vs. Caucasians, 22.5%). Participation in leisure-time physical activity was likely to increase with higher education and household income levels.Throughout the last decade, when data have been available for both U.S. and Michigan, the proportion of Michigan adults who reported no leisure-time physical activity was below the national median.

When asked about their usual non work-related physical activity, 55.2±1.8% of respondents stated that they did not do 30 minutes of moderate physical activity 5 days per week. More than 75% (75.8±1.6%) of respondents did not participate in any vigorous physical activity for a total of at least 20 minutes on 3 or more days a week.

Among currently employed Michigan adults, 61.6±2.3% categorized the physical activity level of their jobs as mostly sitting or standing, 22.1±1.9% as primarily walking, and 16.3±1.8% as heavy labor or physically demanding work.

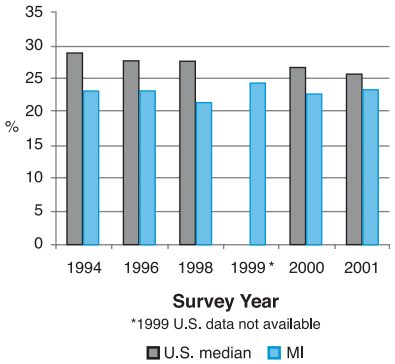
2001 Michigan BRFS

Physical Activity
(% with 95% confidence intervals)

Demographic Characteristics	No Physical Activity[a]
Total	**23.5 ± 1.5**
Age	
18–24 years	13.3 ± 4.0
25–34 years	21.3 ± 3.6
35–44 years	20.1 ± 3.0
45–54 years	26.4 ± 3.4
55–64 years	24.9 ± 4.0
65–74 years	28.6 ± 5.0
≥ 75 years	40.7 ± 6.0
Gender	
Male	20.5 ± 2.2
Female	26.2 ± 2.0
Race	
White	22.5 ± 1.6
Black	29.9 ± 4.8
Education	
Less than high school	37.9 ± 4.5
High school graduate	29.9 ± 2.8
Some college	21.9 ± 2.6
College graduate	10.9 ± 2.0
Household income	
<$20,000	33.7 ± 4.5
$20,000–34,999	26.9 ± 3.3
$35,000–49,999	21.8 ± 3.6
$50,000–74,999	18.1 ± 3.5
≥ $75,000	13.3 ± 2.9

[a]Proportion of respondents who reported that they did not participate in any physical activities, recreation, or exercises in their leisure time (such as running, golf, or walking for exercise) within the past month.

No Leisure-time Physical Activity
U.S. vs. Michigan



Cholesterol Awareness

2001 Michigan BRFS

No Cholesterol Check Within 5 Years
(% with 95% confidence intervals)

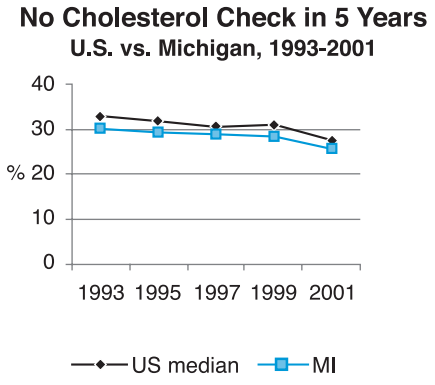
Demographic Characteristics	No Cholesterol Check in 5 years[a]
Total	**25.5 ± 1.6**
Age	
18–24 years	55.3 ± 6.2
25–34 years	40.3 ± 4.4
35–44 years	27.5 ± 3.4
45–54 years	14.7 ± 2.7
55–64 years	11.9 ± 3.1
65–74 years	7.2 ± 3.0
≥ 75 years	7.2 ± 3.1
Gender	
Male	28.8 ± 2.6
Female	22.4 ± 2.0
Race	
White	25.8 ± 1.8
Black	23.9 ± 4.8
Education	
Less than high school	28.2 ± 5.3
High school graduate	29.9 ± 3.0
Some college	24.0 ± 3.0
College graduate	20.3 ± 2.8
Household income	
<$20,000	35.4 ± 5.0
$20,000–34,999	29.7 ± 3.6
$35,000–49,999	27.3 ± 4.0
$50,000–74,999	21.2 ± 3.9
≥ $75,000	18.4 ± 3.5

[a]Proportion of respondents who reported that they did not have their cholesterol checked within the past 5 years.

High blood cholesterol has been recognized as an important risk factor for coronary heart disease.[7] Diets high in saturated fatty acids and trans fatty acids increase blood levels of low density lipoprotein cholesterol, which in turn raise the risk of heart disease.[8] There is evidence that lowering blood cholesterol levels reduces not only the risk for coronary heart disease but also for stroke.[9] A low fat diet, physical activity, weight control and drug treatment are several ways by which one can lower one's cholesterol level.[10]

Two objectives of Healthy People 2010 are to reduce the proportion of people with high total blood cholesterol levels (240 mg/dL or greater) to 17%, and to increase the proportion of people who have had their blood cholesterol checked within the last 5 years to 80%.[11]

The 2001 BRFS estimate of Michigan adults who had ever had their blood cholesterol checked was almost 80% (79.5±1.5%). Of those individuals who had ever had their cholesterol checked, 33% (33.0±1.8%) stated they had been informed by a health professional that they had high blood cholesterol. The percentage of respondents who had their cholesterol levels checked within the last 5 years was 74.5±1.6%, lending hope to the possibility that this particular Healthy People objective can be attained by 2010. The proportion of Michigan residents who have not had their cholesterol checked within the last 5 years has remained below the U.S. median since 1993.

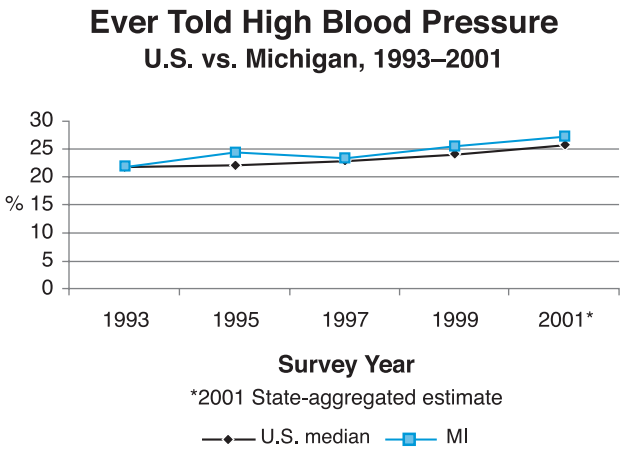


High Blood Pressure

High blood pressure or hypertension is diagnosed when the systolic blood pressure is consistently greater than 140 millimeters of mercury (mmHg) or when the diastolic blood pressure is consistently greater than 90 mmHg.

Although high blood pressure is an important risk factor for heart disease and stroke, it can be detected easily and controlled by making lifestyle changes or by medication.[12] Increasing people's awareness that they have high blood pressure, in order that they may take steps to control it, will help to prevent cardiovascular disease and stroke.

According to the 2001 Michigan BRFS estimates, 27.1% of respondents reported that they had ever been told by a health professional that they had high blood pressure. Among those who had been told that they had high blood pressure, 31% were not taking blood pressure medication. The likelihood of having been told that one had high blood pressure increased with age. The prevalence of self-reported high blood pressure was higher among African Americans than Caucasians (31.9% vs. 26.3%, respectively). While high blood pressure was more prevalent in the lower education and income levels, the proportion of those taking blood pressure medication declined with increasing education and income.



2001 Michigan BRFS

High Blood Pressure
(% with 95% confidence intervals)

Demographic Characteristics	Ever High BP[a]	Taking Medication[b]
Total	**27.1±1.5**	**69.0±3.1**
Age		
18–34 years	10.7±2.2	26.8±9.1
35–44 years	19.2±3.0	38.8±8.6
45–54 years	28.8±3.4	65.2±6.9
55–64 years	43.0±4.6	84.2±5.2
65–74 years	57.4±5.4	91.6±4.1
≥ 75 years	53.0±6.0	91.9±4.1
Gender		
Male	26.9±2.4	60.5±5.1
Female	27.1±1.9	76.5±3.6
Race		
White	26.3±1.6	68.2±3.5
Black	31.9 ±4.7	71.2±8.2
Education		
< High school	36.5±5.1	76.9±7.8
High school grad	30.7±2.8	71.4±5.1
Some college	24.1±2.7	64.8±6.2
College grad	21.8±2.7	63.5±6.8
Household income		
<$20,000	34.2±4.4	77.9±6.6
$20,000–34,999	29.2±3.3	72.4±6.1
$35,000–49,999	23.8±3.7	64.7±8.7
$50,000–74,999	23.6±3.7	59.5±9.0
≥ $75,000	20.8±3.4	57.7±9.3

[a]Proportion of respondents who reported that they had ever been told by a health professional that their blood pressure (BP) was high. [b]Among those ever told they had high BP, the proportion who reported that they were currently taking medicine for their high BP.

Obesity

2001 Michigan BRFS

Obesity
(% with 95% confidence intervals)

Demographic Characteristics	Obesity (BMI≥30.0)[a]
Total	**24.7 ± 1.5**
Age	
18–24 years	10.8 ± 3.8
25–34 years	20.7 ± 3.7
35–44 years	25.3 ± 3.4
45–54 years	31.0 ± 3.7
55–64 years	34.2 ± 4.5
65–74 years	31.5 ± 5.3
≥ 75 years	19.5 ± 4.8
Gender	
Male	25.1 ± 2.4
Female	24.3 ± 2.0
Race	
White	23.2 ± 1.6
Black	34.3 ± 5.1
Education	
Less than high school	27.6 ± 4.9
High school graduate	25.8 ± 2.8
Some college	26.6 ± 2.9
College graduate	20.1 ± 2.8
Household income	
<$20,000	29.6 ± 4.4
$20,000–34,999	26.3 ± 3.4
$35,000–49,999	26.7 ± 4.0
$50,000–74,999	22.6 ± 3.8
≥ $75,000	20.9 ± 3.4

[a]BMI, body mass index, is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/(height in meters)]. Weight and height are self-reported. Pregnant women were excluded from this analysis.

The prevalence of obesity has been increasing steadily in the U.S. over the past decade, becoming a major public health concern. Excess body weight is a risk factor for numerous chronic diseases, such as cardiovascular disease, diabetes, hypertension, and stroke.[13] Recent research shows that obesity has a greater effect on chronic health conditions than smoking or problem drinking.[14]

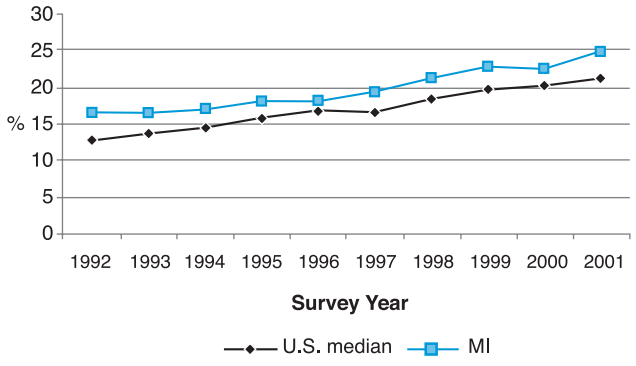
Obesity is defined as having a body mass index (BMI) of ≥30. BMI is defined as weight in kilograms divided by height in meters squared (w/h^2) and has been calculated from the self-reported height and weight measurements of Michigan residents participating in the 2001 BRFS survey.

Healthy People 2010 objectives target weight status among adults. These include increasing the proportion of adults who are at a healthy weight and reducing the proportion of adults who are obese.[15]

From the 2001 BRFS data, it was estimated that nearly one-quarter (24.7%) of the Michigan adult population was obese. African Americans were more likely to be obese than Caucasians (34.3 ± 5.1% vs. 23.2 ± 1.6%). Obesity increased with age but dropped off after age 75. The proportion who were obese declined with increasing education and income levels. The proportion of adults who reported a BMI ≥ 30 increased 10.3% since the 2000 BRFS.

The proportion of adults surveyed who were at a healthy weight was 38.3 ± 1.8%. More women than men were found to have a healthy weight, i.e., BMI within the range of 18.5 and 24.9 (men, 31.7 ± 2.6% vs. women, 44.7 ± 2.3%).

Obesity
U.S. vs. Michigan, 1991–2001



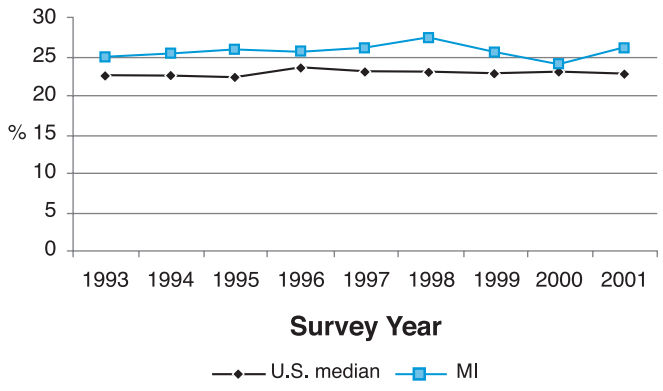
Smoking

Between 1995 and 1999, approximately 440,000 premature deaths annually in the U.S. were attributed to smoking.[16] Smoking has been associated with a number of diseases, including heart disease, lung and other cancers, and chronic lung disease.[17] The health risk from smoking affects not only smokers but also those around them. Second-hand, or environmental, smoke has been linked to lung cancer deaths in non-smoking adults and to respiratory illnesses, such as asthma, in children.[18]

The Healthy People 2010 objectives aim to reduce tobacco use in both adults and adolescents, which if successful, would help to mitigate the tobacco-related health burden.[19]

Estimates from the 2001 Michigan BRFS indicate that approximately 26% (26.1%) of adults were current smokers, while almost as many (25.7±1.5%) reported that they were former smokers. Smoking prevalence declined with increasing age, higher education and income levels. Despite being only 0.8% higher in 2000, the proportion of people in Michigan who smoke remained above the U.S. national median (see table below).

Current Cigarette Smoking
U.S. vs. Michigan, 1993–2001



2001 Michigan BRFS

Smoking
(% with 95% confidence intervals)

Demographic Characteristics	Current Smokers[a]
Total	**26.1 ± 1.6**
Age	
18–24 years	34.3 ± 5.6
25–34 years	31.8 ± 4.1
35–44 years	33.5 ± 3.6
45–54 years	26.5 ± 3.3
55–64 years	19.5 ± 3.8
65–74 years	12.2 ± 3.8
≥ 75 years	5.1 ± 2.6
Gender	
Male	27.9 ± 2.6
Female	24.6 ± 2.0
Race	
White	26.0 ± 1.7
Black	28.6 ± 4.9
Education	
Less than high school	40.7 ± 5.5
High school graduate	31.3 ± 3.0
Some college	25.6 ± 2.9
College graduate	14.3 ± 2.4
Household income	
<$20,000	36.5 ± 4.7
$20,000–34,999	33.5 ± 3.6
$35,000–49,999	29.4 ± 4.0
$50,000–74,999	21.1 ± 3.7
≥ $75,000	18.0 ± 3.4

[a]Proportion of respondents who reported that they had ever smoked at least 100 cigarettes in their life and that they smoke cigarettes now.

Diabetes

Diabetes is a chronic disease characterized by high glucose levels, owing to insufficient production of insulin by the pancreas or to a reduction in the body's ability to use insulin. As many as 17 million people, 6.2% of the population, are estimated to have diabetes; almost one third (5.9 million) are undiagnosed.[22] The prevalence of diabetes mellitus has been increasing over the past decade; in just 8 years diabetes has risen 33%. Diabetes was the sixth leading cause of death in the United States and ranked as the seventh leading cause of death in Michigan.[20, 21] Complications from diabetes include high blood pressure, blindness, kidney disease, lower-limb amputations, heart disease, and stroke.[22] Weight gain and high body mass index, which are risk factors for diabetes, have also been increasing in Michigan (see BRFS section on obesity) and the U.S.[23]

Healthy People 2010 lists a number of objectives with respect to diabetes. These include preventing new cases of diabetes, increasing the proportion of people with diabetes who receive formal diabetes education, increasing the proportion of adults whose diabetes has been diagnosed, and reducing the diabetes death rate.[24]

Based on the 2001 BRFS, an estimated 7.2% of Michigan adults had been informed by a doctor that they have diabetes. The proportion increased with age and decreased with education and income levels. African Americans (10.1%) were more likely to have been told by a doctor that they had diabetes compared with Caucasians (6.6%).

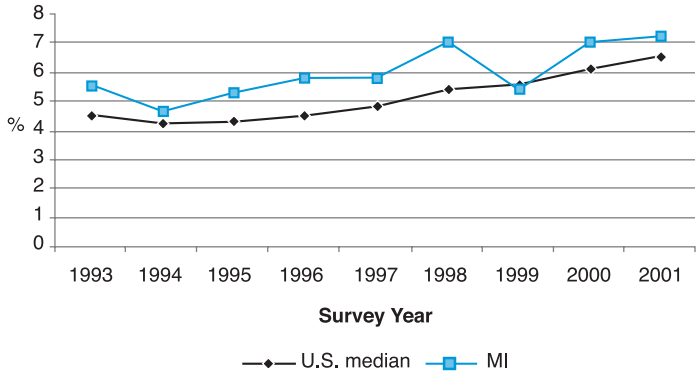
2001 Michigan BRFS

Diabetes
(% with 95% confidence intervals)

Demographic Characteristics	Ever Told Have Diabetes[a]
Total	**7.2 ± 0.9**
Age	
18–24 years	2.2 ± 2.0
25–34 years	1.2 ± 1.1
35–44 years	3.9 ± 1.4
45–54 years	8.8 ± 2.2
55–64 years	12.2 ± 3.0
65–74 years	17.7 ± 4.1
≥75 years	16.1 ± 4.5
Gender	
Male	6.7 ± 1.3
Female	7.4 ± 1.2
Race	
White	6.6 ± 0.9
Black	10.1 ± 2.9
Education	
Less than high school	14.0 ± 3.5
High school graduate	8.4 ± 1.7
Some college	6.0 ± 1.4
College graduate	4.0 ± 1.3
Household income	
<$20,000	11.0 ± 2.8
$20,000–34,999	8.1 ± 2.0
$35,000–49,999	6.3 ± 2.1
$50,000–74,999	4.6 ± 1.8
≥$75,000	4.6 ± 1.8

[a]Proportion of respondents who reported that they had ever been told by a doctor that they had diabetes (gestational diabetes excluded).

Ever Told Have Diabetes
U.S. vs. Michigan, 1993–2001



Arthritis

Approximately 43 million Americans have some form of arthritis.[25] There are more than 100 different types of arthritis.[26] Arthritis causes pain and stiffness around the joint area, but some arthritic diseases can also affect other parts of the body, such as the skin or internal organs.

Arthritis is the leading cause of disability in the United States.[27] It is estimated that by 2020 as the population ages, roughly 60 million Americans will be affected by arthritis, with 11.6 million expected to experience some form of limited activity as a result of arthritis and other rheumatic diseases.[25, 28, 29]

It was estimated from the 2001 Michigan BRFS data that 38.4% of adults 18 years and older had pain, aching, stiffness, and swelling in or around a joint on most days for at least one month in the last 12 months, or they had been told by a doctor that they had arthritis. Arthritis prevalence estimates for women were greater than those for men (women, 41.8% versus men, 34.9%). The proportion of adults with arthritis tended to increase with age but decrease with higher education and income levels.

In the interest of lessening the public health burden of arthritis, goals for Healthy People 2010 include increasing the proportion of adults who have seen a health care provider for their chronic joint symptoms. Michigan BRFS estimates for 2001 indicate that of those individuals who reported joint pain in the last year, 77.4 ± 2.9% had seen a health professional for joint symptoms.

2001 Michigan BRFS

Arthritis

(% with 95% confidence intervals)

Demographic Characteristics	Have Arthritic Symptoms or Ever Told Have Arthritis[a]
Total	**38.4 ± 1.7**
Age	
18–24 years	17.1 ± 4.5
25–34 years	21.0 ± 3.6
35–44 years	32.4 ± 3.5
45–54 years	43.8 ± 3.8
55–64 years	53.5 ± 4.7
65–74 years	62.1 ± 5.4
≥ 75 years	73.0 ± 5.2
Gender	
Male	34.9 ± 2.6
Female	41.8 ± 2.2
Race	
White	38.7 ± 1.9
Black	39.1 ± 5.1
Education	
Less than high school	57.8 ± 5.4
High school graduate	40.8 ± 3.0
Some college	36.8 ± 3.1
College graduate	29.1 ± 3.0
Household income	
<$20,000	48.8 ± 4.9
$20,000–34,999	44.6 ± 3.7
$35,000–49,999	35.2 ± 4.1
$50,000–74,999	33.2 ± 4.1
≥$75,000	29.4 ± 3.9

[a]Reported either that they had joint symptoms on most days for at least one of the last 12 months or that they had been told by a doctor that they had arthritis.

Asthma

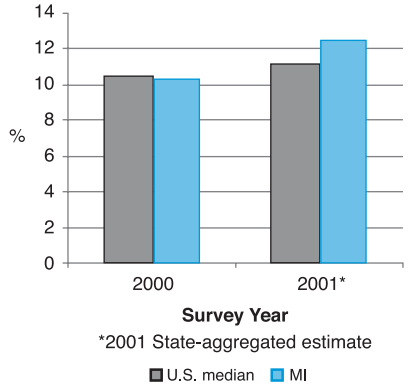
2001 Michigan BRFS

Asthma
(% with 95% confidence intervals)

Demographic Characteristics	Ever Told Asthma[a]	Still Have Asthma[b]
Total	**12.4 ± 1.2**	**8.8 ± 1.0**
Age		
18–24 years	21.4 ± 5.1	11.8 ± 4.1
25–34 years	13.2 ± 2.9	9.7 ± 2.5
35–44 years	11.1 ± 2.4	8.3 ± 2.1
45–54 years	10.2 ± 2.3	7.7 ± 2.0
55–64 years	12.3 ± 3.0	9.7±2.7
65–74 years	8.2 ± 3.2	6.1±2.7
≥ 75 years	10.0 ± 3.7	8.3 ±3.5
Gender		
Male	10.5 ± 1.8	6.7 ± 1.5
Female	14.1 ± 1.6	10.8 ± 1.5
Race		
White	11.7 ± 1.3	8.6 ± 1.1
Black	17.2 ± 4.1	11.2 ± 3.5
Education		
< High school	15.2 ± 4.1	10.0 ± 3.3
High school grad	11.7 ± 2.1	8.6 ± 1.8
Some college	14.3 ± 2.4	10.0 ± 2.1
College graduate	9.8 ± 2.0	7.3 ± 1.7
Household income		
<$20,000	18.1 ± 3.9	12.5 ± 3.2
$20,000–34,999	13.0 ± 2.5	9.5 ± 2.2
$35,000–49,999	13.0 ± 3.1	8.7 ± 2.6
$50,000–74,999	9.1± 2.7	7.4 ± 2.5
≥ $75,000	10.0 ± 2.6	7.4 ± 2.3

[a]Proportion of all respondents who reported that they had ever been told by a doctor that they had asthma.
[b]Proportion of all respondents who reported that they still had asthma.

Ever Told Have Asthma
U.S. vs. Michigan, 2000–2001



Asthma is a chronic inflammatory disorder of the lungs, and is characterized by wheezing, coughing, and difficulty with breathing. The airway obstruction and hyperresponsiveness associated with asthma symptoms are typically reversible, distinguishing asthma from other chronic pulmonary diseases. Asthma attacks can be precipitated by a variety of triggers, such as cold air, allergens and irritants, and respiratory viral infections. For the last two decades asthma prevalence in the U.S. and elsewhere has been increasing; however, apart from asthma mortality data, surveillance information on asthma has not been available at the state level.[30, 31] Questions about self-reported asthma were included in both the 2000 and 2001 BRFS to obtain estimates of asthma prevalence within the state and, among those individuals with asthma, to gauge the use of hospital and health professional services and the number of days of restricted activities owing to asthma. Collecting this information will be useful in the development of specific intervention and treatment programs to reduce the asthma burden.

From the 2001 BRFS data, it was estimated that 12.4% of Michigan adults had been told at some time during their lifetime by a health professional that they had asthma (women, 14.1%; men, 10.5%). An estimated 17.2% of African Americans had ever received a diagnosis of asthma ever compared with 11.7% of Caucasians.

Almost 9% (8.8%) of respondents indicated that they still had asthma. The proportion of women with current asthma was higher than that of men (10.8% vs. 6.7%). The proportion of respondents who reported that they still had asthma was highest for those whose household income was below $20,000 (12.5%).

Among those ever told that they had asthma, 47.6 ± 5.4% had been diagnosed at the age of 15 years or younger; 64.9 ± 8.8% of men with ever asthma had been diagnosed at age 15 or younger, whereas 64.0 ± 6.3% of women with ever asthma had been diagnosed after the age of 15. The prevalence of adult-onset asthma was higher among women than men (8.7 ± 1.3% vs. 3.5 ± 1.0%).

Disability

Disabilities affect approximately 22% of American adults.[32] There is a myriad of definitions for disability, ranging from experiencing difficulty in performing certain activities, such as lifting and carrying objects, seeing, hearing, talking, walking or climbing stairs, to more severe disability such that a person requires assistance to perform basic functions. Disability rates are expected to rise in the next several decades, owing to an aging population.[33]

To gain a sense of the prevalence of disability in 2001, the BRFS introduced questions about limitations in activities and the need for special equipment because of a health problem. Approximately 18% (18.2%) of respondents aged 18 years and over indicated that their activities were limited in some way because of physical, mental, or emotional problems. The proportion of individuals who reported limitations in their activities rose with age and declined with higher education and income levels.

It was estimated that 6.1% of adults required special equipment for a health problem, such as a cane, a wheelchair, a special bed, or a special telephone. The prevalence of those who required special equipment was higher among women than men (7.2% vs. 4.9%) and among African Americans than Caucasians (9.6% vs. 5.5%). The highest proportion of respondents who required special needs equipment was found at the lowest education and income levels.

These measures of disability are likely to be underestimates, as the BRFS does not interview institutionalized persons nor persons unable to complete a telephone interview.

2001 Michigan BRFS

Disability

(% with 95% confidence intervals)

Demographic Characteristics	Limited Activities[a]	Special Equipment[b]
Total	**18.2±1.3**	**6.1±0.8**
Age		
18–24 years	8.9±3.4	0.7±0.8*
25–34 years	10.1±2.6	3.0±1.6
35–44 years	15.2±2.7	3.9±1.5
45–54 years	22.8±3.2	6.7±2.1
55–64 years	24.5±3.9	7.5±2.4
65–74 years	25.7±4.8	11.0±3.3
≥75 years	33.2±5.6	19.8±4.8
Gender		
Male	17.3±2.1	4.9±1.2
Female	19.0±1.7	7.2±1.1
Race		
White	18.4±1.5	5.5±0.8
Black	17.2±3.7	9.6±3.1
Education		
< High school	29.0±4.9	13.5±3.6
High school grad	18.2±2.3	6.2±1.5
Some college	19.6±2.5	5.9±1.4
College grad	11.8±2.1	3.1±1.2
Household income		
<$20,000	31.7±4.4	14.2±3.3
$20,000–34,999	20.3±2.9	6.9±1.8
$35,000–49,999	16.7±3.3	3.9±1.7
$50,000–74,999	12.2±2.8	3.3±1.6
≥75,000	12.8±2.8	2.6±1.4

[a]Proportion of respondents who responded that they were limited in any way in any activities because of physical, mental, or emotional problems.

[b]Proportion of respondents who responded "yes" to the question "Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or special telephone?"

*95% confidence interval exceeds possible limits.

Immunizations

2001 Michigan BRFS
Immunization for Influenza
Among Those 65 Years and Older
(% with 95% confidence intervals)

Demographic Characteristics	No Flu Shot[a]
Total	**39.9 ± 4.0**
Gender	
Male	39.6 ± 6.6
Female	39.2 ± 5.0
Race	
White	38.1 ± 4.2
Black	51.1 ± 13.7
Education	
Less than high school	43.3 ± 8.5
High school graduate	41.6 ± 6.8
Some college	37.0 ± 7.9
College graduate	32.4 ± 9.1

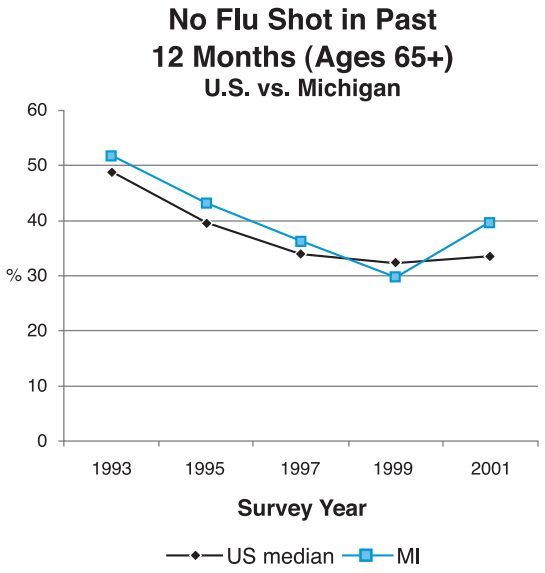
[a]Proportion of respondents 65 years and older who said that they had not had a flu shot in the past 12 months.

A common viral infection, influenza is responsible for an average of 20,000 deaths annually in the United States.[34, 35] Although children have a high rate of infection, between 80 and 90% of all influenza-related deaths occur among people over the age of 65.[34] People of any age with certain chronic medical conditions are also considered a high-risk group for influenza-related morbidity and mortality.[36]

Annual flu shots can reduce the chance of contracting influenza infection and disease.[37] Flu shots are recommended not only for high-risk groups, but also for health care workers who are in close contact with populations at high risk from the complications of influenza.[36]

Since 1993, the national BRFS estimates of people 65 years and over who reported that they did not have a flu shot in the past 12 months declined from 49.1% to 32.6% in 1999. In Michigan, over the same period, the estimate dropped in a similar manner from 52.1 to 30.0%. However, in 2001, this estimate increased again to 40% (39.9%) of Michigan adults who had not received a flu shot in the past 12 months, which may reflect the shortages in supply of influenza vaccine during the winter of 2000–2001.

The risk of pneumococcal disease increases with age; 56% of all pneumococcal deaths occur among people 65 years and older.[38] In the 2001 Michigan BRFS, the prevalence estimate among adults aged 65 and older for ever having been immunized against pneumococcal disease was 58.1± 4.1%. A one-time immunization against pneumococcal disease is recommended for adults age 65 and older to prevent serious illness and death.[39]



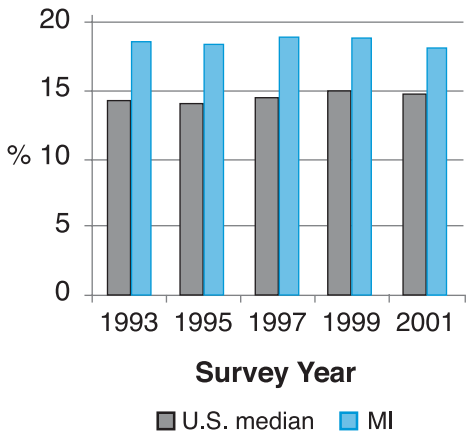
Alcohol Consumption

While moderate alcohol consumption has been associated with a protective effect against coronary heart disease and cerebrovascular events, alcohol abuse can lead to high risk behaviors, causing motor vehicle accidents, homicide, suicide, and physical abuse.[39–41] Chronic long-term drinking has also been linked to heart disease, cancer, liver disease and pancreatitis.[39] Binge drinking, defined as consuming five or more drinks at one occasion, may increase the likelihood of unprotected and unplanned sexual activity.[42]

The estimated prevalence of heavy drinking among adults 18 years and over, i.e., those who reported the consumption of 60 or more alcoholic beverages in the past month, as determined by the 2001 Michigan BRFS, was 5.7%. The proportion of respondents who indicated that they consumed five or more alcoholic drinks per occasion at least once in the previous month (binge drinking) was 18.2%. Men were more likely than women to have participated in either drinking behavior (heavy drinking by men, 9.9% vs. by women, 2.0%; binge drinking by men, 27.4% vs. by women, 9.8%). The highest proportion of people who binge drink was estimated to occur among 18- to 24-year-olds.

For the last decade, the proportion of Michigan adults who reported that they engaged in binge drinking has been higher than the national median.

Binge Drinking
U.S. vs. Michigan, 1993–2001



2001 Michigan BRFS

Alcohol Consumption
(% with 95% confidence intervals)

Demographic Characteristics	Heavy Drinking[a]	Binge Drinking[b]
Total	**5.7 ± 0.9**	**18.2 ± 1.5**
Age		
18–24 years	10.3 ± 4.0	35.9 ± 5.9
25–34 years	4.7 ± 2.0	28.1 ± 4.0
35–44 years	5.8 ± 1.7	18.7 ± 2.9
45–54 years	6.5 ± 2.0	13.9 ± 2.7
55–64 years	4.1 ± 1.8	9.3 ± 2.8
65–74 years	4.5 ± 2.5	5.9 ± 3.0
≥ 75 years	2.5 ± 1.9	2.8 ± 1.9
Gender		
Male	9.9 ± 1.7	27.4 ± 2.6
Female	2.0 ± 0.6	9.8 ± 1.4
Race		
White	6.0 ± 1.0	18.9 ± 1.6
Black	4.0 ± 2.4	15.5 ± 4.2
Education		
<High school	5.7 ± 2.8	18.2±4.7
High school grad	5.4 ± 1.5	17.2±2.5
Some college	6.0 ± 1.7	21.6±2.9
College grad	5.8 ± 1.6	15.5±2.5
Household income		
<$20,000	5.0±2.5	19.0±4.4
$20,000–34,999	6.3±2.0	18.1±3.1
$35,000–49,999	5.8 ± 2.2	20.4±3.7
$50,000–74,999	6.5 ± 2.3	20.5±3.7
≥$75,000	6.2 ± 2.1	19.8±3.6

[a]Proportion of respondents who reported consuming 60 or more alcoholic drinks in the past month.
[b]Proportion of respondents who reported consuming five or more drinks on one occasion in the past month.

Colorectal Cancer Screening

2001 Michigan BRFS

Colorectal Cancer Screening Among Adults Aged 50 Years and Older
(% with 95% confidence intervals)

Demographic Characteristics	No Blood Stool Test in Last 2 Years[a]	Never Had a Sigmoid- or Colonoscopy[b]
Total	**63.5 ± 2.6**	**44.8 ± 2.7**
Age		
50–59 years	69.7±3.8	54.7±4.1
60–69 years	56.3±5.2	40.9±5.2
≥70 years	61.4±4.8	35.3±4.7
Gender		
Male	63.6±4.1	43.1±4.2
Female	63.3±3.4	46.2±3.5
Race		
White	62.5±2.8	44.1±2.9
Black	69.7±8.0	48.1±9.0
Education		
<High school	67.1±6.7	54.3±7.2
High school grad	65.6±4.4	48.4±4.6
Some college	62.0±5.1	40.7±5.1
College grad	59.7±5.4	38.0±5.3
Household income		
<$20,000	70.1±5.8	48.0±6.4
$20,000–34,999	60.7±5.5	44.2±5.5
$35,000–49,999	54.9±7.6	42.6±7.4
$50,000–74,999	65.5±7.0	50.0±7.5
≥$75,000	66.7±7.0	39.6 ±7.2

[a]The proportion of respondents who did not have a blood stool test within the last two years using a home kit.
[b]The proportion of respondents who had never received a sigmoidoscopy or a colonoscopy.

After lung cancer, colorectal cancer is the next leading cause of cancer deaths in the U.S.[20] Cancers of the rectum and colon are thought to develop slowly over time. Established risk factors for colorectal cancer incidence are male gender, African American ethnicity, age 50 years and older, family history of colorectal cancer, personal history of polyps or inflammatory bowel disease, and higher socioeconomic status. Potential colorectal cancer incidence risk factors include a diet high in animal fats and low in fruits and vegetables, lack of exercise, alcohol consumption, and obesity.[43, 44] Early detection can reduce deaths due to colorectal cancer by screening for small growths or polyps in the colon or rectum. Removing a polyp early may prevent it from becoming cancerous. Fecal occult blood testing (FOBT), sigmoidoscopy and colonoscopy are screening tests performed to detect early changes in the lining of the colon and rectum.

For individuals 50 years and older, the American Cancer Society recommends a fecal occult blood test performed yearly and (or) a sigmoidoscopy procedure every five years.[43] Two of the Healthy People 2010 objectives are to increase the proportion of adults aged 50 and older who have received an FOBT within the preceding two years and who have ever received a sigmoidoscopy.[45]

Using data from the 2001 Michigan BRFS, it was estimated that 51.2 ± 2.7% of Michigan adults aged 50 years and older had ever used an FOBT kit at home to determine if the stool contains blood. Of African Americans surveyed, 38.7 ± 8.6% had ever used an FOBT, compared with 52.9 ± 2.9% Caucasians. Roughly 64% of adults aged 50 years and older stated that they had not taken this test within the last two years.

Among respondents aged 50 years or older, approximately 55% (55.2 ± 2.7%) reported ever having had a sigmoidoscopy or colonoscopy. Within the last 5 years, 45.2 ± 2.7% of those aged 50 and over had undergone a sigmoidoscopy or colonoscopy.

Prostate Cancer Screening

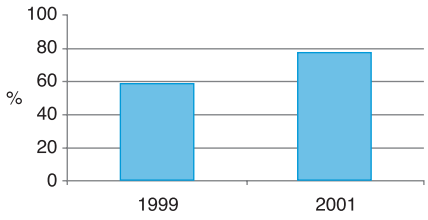
Prostate cancer is the second leading cause of cancer mortality (after lung cancer) in American men.[46] The risk for developing prostate cancer increases with age. Incidence of prostate cancer is 80 times higher in men 85 years and older compared with men between 40 and 45.[47] Other than age, additional risk factors are thought to include a positive family history, certain genetic factors, being an African-American male, and a diet high in animal fats.

With screening, prostate cancer may be detected early and treated before it has spread. Three prostate cancer screening tests are available: the digital rectal examination (DRE), the prostate-specific antigen (PSA) blood test, and the trans-urethral ultrasound exam. Because there are no data yet from randomized clinical trials on the benefits of prostate cancer screening tests, there is a lack of consensus among medical organizations about recommendations for screening.[48]

In 2001 the BRFS included questions on prostate cancer screening. An estimated 87.0% of men 50 years and older surveyed for the Michigan BRFS reported that they had ever undergone a DRE. Nearly 60% (59.2%) of male respondents over 50 had received the DRE in the past year.

Among male respondents 50 and over, 78.1% indicated that they had ever had a PSA blood test, an increase of 33.5% since 1999 (58.5±5.8%). It was estimated that 60.2% of respondents had received the PSA test within the past year.

Ever had a PSA Test
(Men Aged 50 Years and Older)



Michigan BRFSS Survey Years

2001 Michigan BRFS
Prostate Cancer Screening among Men 50 Years and Older[a]
(% with 95% confidence intervals)

Demographic characteristics	Ever had DRE[b]	Had DRE in past year	Ever had PSA test[c]	Had PSA in past year
Total	**87.0±3.0**	**59.2±4.4**	**78.1±3.7**	**60.2±4.4**
Age				
50–59 years	84.1 ± 4.7	53.2 ± 6.2	72.2 ± 5.7	52.5 ± 6.3
60–69 years	91.2 ± 4.3	64.6 ± 8.1	83.9 ± 6.2	69.3 ± 8.0
≥70 years	88.5 ± 6.6	65.5 ± 9.0	83.4 ± 7.3	66.0 ± 9.1
Race				
White	89.2 ± 2.9	61.0 ± 4.5	79.0 ± 3.9	61.7 ± 4.6
Black	72.0 ± 6.2	44.7 ± 16.7	72.6 ± 15.6	47.5 ± 16.9
Education				
≤ High school	84.2 ± 5.2	55.0 ± 6.8	76.8 ± 5.9	58.8 ± 6.8
> High school	89.3 ± 3.5	62.4 ± 5.6	79.1 ± 4.7	61.3 ± 5.7
Household income				
<$35,000	85.1 ± 5.4	56.3 ± 7.2	77.0 ± 6.3	62.5 ± 7.1
≥$35,000	88.5 ± 4.1	61.8 ± 6.2	80.0 ± 5.2	60.7 ± 6.3

[a]Men who had been diagnosed with prostate cancer (7.7%) were excluded.
[b]Reported "yes" to the question, "A digital rectal exam (DRE) is an exam in which a doctor, nurse or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?"
[c]Reported "yes" to the question, "A prostate-specific antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?"

HIV Testing

Between 1996 and 2000 in the United States, the number of people diagnosed with acquired immunodeficiency syndrome (AIDS) and the number of deaths due to AIDS decreased.[49] This decline has been primarily associated with the implementation in 1996 of highly active antiretroviral therapy (HAART), which slows the progression of human immunodeficiency virus (HIV) infection to AIDS. However, the prevalence of AIDS has been rising steadily since the 1980s, in part because people with AIDS are living longer as a result of HAART.[49]Obtaining an accurate measure of the incidence of HIV is difficult. It is thought that approximately one quarter of those with HIV infection in the U.S. are unaware they are infected and HIV testing after HIV exposure but prior to HIV seroconversion will miss cases.[49] Despite declining AIDS figures, HIV infection continues to spread among populations with a high behavioral risk profile and among the poor.[49]

The BRFS measures the proportion of residents who have been tested for the presence of HIV antibodies aside from routine HIV testing as a part of blood donations. The prevalence estimate from the 2001 Michigan BRFS of ever having been tested for HIV, apart from blood donations, was 46.8%. At 67.8%, adults aged 25–34 years had the highest estimate of all age groups, with the prevalence of HIV testing declining after age 35. A greater proportion of African Americans than Caucasians reported that at some time they had undergone an HIV test (59.6% vs. 44.6%, respectively).

Less than 5% (4.8 ± 1.1%) of adults aged 18–49 years indicated that they had undertaken any high risk behaviors in the past year, such as used intravenous drugs; been treated for a sexually transmitted disease; had tested positive for HIV; or had anal sex without a condom. An estimated 10.6% (±1.6%) of adults between 18 and 49 years reported that they had changed their sexual behavior in the past year because of what they knew about HIV. The proportion of respondents who had changed their sexual behavior ranged from 18.7% (±3.8%) among adults aged 18–29, 7.9% (±2.3%) among the 30–39 age group, to 5.7% (±1.8%) among those 40–49. African Americans were more likely to have changed their sexual behavior in the past year than Caucasians because of HIV knowledge (African Americans, 26.9±6.7% vs. Caucasians, 8.0±1.6%).

2001 Michigan BRFS

Ever tested for HIV
(% with 95% confidence intervals)

Demographic Characteristics	Ever Tested for HIV[a]
Total	**46.8 ± 2.0**
Age	
18–24 years	42.5 ± 5.9
25–34 years	67.8 ± 4.1
35–44 years	54.1 ± 3.7
45–54 years	33.8 ± 3.6
55–64 years	22.2 ± 3.8
Gender	
Male	44.5 ± 3.0
Female	49.0 ± 2.5
Race	
White	44.6 ± 2.1
Black	59.6 ± 5.8
Education	
Less than high school	46.7 ± 7.2
High school graduate	44.1 ± 3.5
Some college	47.2 ± 3.5
College graduate	49.7 ± 3.6
Household income	
<$20,000	47.7 ± 6.1
$20,000–34,999	49.6 ± 4.3
$35,000–49,999	49.5 ± 4.7
$50,000–74,999	44.9 ± 4.6
≥ 75,000	44.3 ± 4.3

[a]Reported "yes" to the question, "As far as you know, have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation." "Don't know" was considered a valid response.

BRFSS Methods

The national Behavioral Risk Factor Surveillance System (BRFSS) consists of annual surveys conducted independently by the states, Washington, DC, and U.S. territories and coordinated through a cooperative agreement with the Centers for Disease Control and Prevention (CDC). The annual Michigan surveys follow the overall CDC telephone survey protocol for the BRFSS.[51] The 2001 Michigan Behavioral Risk Factor Survey (BRFS) data were collected quarterly by the Institute for Public Policy and Social Research at Michigan State University. The sample of telephone numbers was selected using a list-assisted, random-digit-dialed methodology with disproportionate stratification based on phone bank density.

The 2001 Michigan BRFS data were weighted to adjust for the probabilities of selection (based on the probability of telephone number selection, the number of adults in the household, and the number of residential phone lines) and a post-stratification weighting factor that adjusted estimates (using 1999 Michigan intercensal population distributions) by sex, age, and race. Calculations of the prevalence estimates and confidence interval limits were performed using SUDAAN, a statistical computing program that was designed for analyzing data from multistage sample surveys.[52]

Unless otherwise specified, respondents who answered that they did not know or refused to answer were not included in the calculation of estimates.

For comparison purposes, the median of estimates from participating states and territories is used for the national estimates, rather than the mean. In most cases though, it is likely that the median and the mean, or state-aggregated estimate, are similar. At press time of this report, the U.S. median values for 2001 were available for only a select number of indicators. In instances where the U.S. median was not available, a state-aggregated estimate was substituted and it is indicated so on the graphs.

SAMPLE RESULTS

A total of 38,200 telephone numbers were used for the 2001 Michigan BRFS. The final call dispositions for the sample numbers fell into the following categories: 3830 completed interviews, 847 refusals, 20,438 non-working numbers, 2246 ring-no-answers, 5883 businesses, 88 households reached but no member eligible, 696 eligible respondents selected but not interviewed, 132 informants or eligible respondents with language barriers, 0 busy numbers, 98 interviews were terminated, 182 informants or eligible respondents unable to participate, and 731 numbers with an automated response or call blocking. The CASRO (Council of American Survey Research Organizations) response rate, which includes a portion of the dispositions with unknown eligibility in the denominator of the rate, was 44.2%. Of all household contacts, 45.1% resulted in a completed interview.

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Selected Risk Factors and Health Indicators

Risk Factors/ Health Indicators	Prevalence Estimates (%) ±95% Confidence Intervals		
	Overall	Men	Women
Physical health poor (mean number of days in past month)	3.7 ± 0.3	3.2 ± 0.4	4.0 ± 0.4
Mental health poor (mean number of days in past month)	3.8 ± 0.3	3.0 ± 0.4	4.3 ± 0.4
Limited activity (mean number of days in past month)	2.2 ± 0.2	2.0 ± 0.3	2.3 ± 0.3
No personal health care provider	18.5 ± 1.4	22.9 ± 2.4	14.2 ± 1.7
No moderate physical activities in past month	55.2 ± 1.8	52.3 ± 2.8	58.0 ± 2.3
Mostly sitting or standing at work	61.6 ± 2.3	56.2 ± 3.4	67.7 ± 2.9
Mostly heavy labor at work	16.3 ± 1.8	24.6 ± 3.0	6.9 ± 1.6
Cholesterol ever checked	79.5 ± 1.5	76.5 ± 2.5	82.4 ± 1.9
Ever told cholesterol was high	33.0 ± 1.8	35.4 ± 2.9	31.0 ± 2.2
Overweight (BMI 25.0–29.9)	35.7 ± 1.7	42.8 ± 2.7	28.8 ± 2.1
Tried to quit smoking in past year	58.3 ± 3.5	57.1 ± 5.4	59.6 ± 4.5
Ever told by a doctor had arthritis	28.3 ± 1.5	23.5 ± 2.3	32.6 ± 2.1
Ever had pneumonia vaccination (≥65 years)	58.1 ± 4.1	56.2 ± 6.9	59.3 ± 5.1
Consumed any alcohol in past month	57.1 ± 1.7	65.6 ± 1.9	49.7 ± 2.3
Had a blood stool test in past year	25.7 ± 2.4	26.5 ± 3.7	25.0 ± 3.1
Had a sigmoidoscopy/colonoscopy in past 5 years	45.2 ± 2.7	47.3 ± 4.3	43.4 ± 3.5
Very important to know HIV status	89.6 ± 1.2	87.4 ± 2.0	91.8 ± 1.3
Think medical treatments help one with HIV live longer	91.3 ± 1.1	91.4 ± 1.7	91.2 ± 1.4
Think HIV treatments to prolong life are very effective	20.6 ± 1.6	18.4 ± 2.5	22.6 ± 2.2
Firearms kept in the home	38.3 ± 1.8	44.5 ± 2.8	33.1 ± 2.2

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